

<b>FEATURE:</b> Klamath River Dams Removal Partial Removal Option JC Boyle Dam & Powerplant Removal Most Probable High Life Cycle - 50 Year Summary				<b>PROJECT:</b> Klamath River Oregon			
				<b>WOID:</b> AF652	<b>ESTIMATE LEVE</b> Feasibility		
				<b>REGION</b> MP	<b>UNIT PRICE LEV</b> Jul-10		
				<b>FILE:</b> U:\2011 Projects\Klamath\007 Crystal Ball\Klamath Summary Cost Sheet_122310.xls\MPL_MP_MPH_Full			

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Periodic Costs - Year 1					\$394,940.00
		Periodic Costs - Year 5					\$219,930.92
		Periodic Costs - Year 10					\$179,684.33
		Periodic Costs - Year 13					\$62,645.06
		Periodic Costs - Year 15					\$146,802.77
		Periodic Costs - Year 20					\$119,937.60
		Periodic Costs - Year 25					\$136,558.46
		Periodic Costs - Year 30					\$80,059.80
		Periodic Costs - Year 35					\$65,407.79
		Periodic Costs - Year 38					\$22,803.62
		Periodic Costs - Year 40					\$53,439.60
		Periodic Costs - Year 45					\$43,659.93
		Periodic Costs - Year 50					0.00
		Annual Costs - Maintenance					\$5,257,515.00
		(Assumes gov't service / construction contracts)					
		<b>Subtotal 1</b>					<b>\$6,783,384.88</b>
		Mobilization	5%	+/-			\$340,000.00
		<b>Subtotal 1 with Mobilization</b>					<b>\$7,123,384.88</b>
		Escalation to Notice to Proceed (NTP): from Unit Price Level (July, 2010) to NTP (July, 2020)					\$3,807,399.12
		at 4.375% per year for 120 months.					
		<b>Subtotal 2 = Subtotal 1 with Mobilization + Escalation to NTP</b>					<b>\$10,930,784.00</b>
		Design Contingencies	15%	+/-			\$1,817,808.00
		<b>Subtotal 3 = Subtotal 2 + Design Contingencies</b>					<b>\$12,748,592.00</b>
		Allowance for Procurement Strategies (APS)	2.0%	+/-			\$251,408.00
		Type of solicitation assumed is: Selective Request for Proposal					
		<b>Subtotal 4 = Subtotal 3 + APS</b>					<b>\$13,000,000.00</b>
		<b>CONTRACT COST</b>					<b>\$13,000,000.00</b>
		Construction Contingencies	25%	+/-			\$3,000,000.00
		<b>FIELD COST</b>					<b>\$16,000,000.00</b>
		Non-Contract Costs	35%	+/-			\$6,000,000.00
		(Environmental Cultural / Mitigation ~ 10%,					
		Engineering Design ~ 7%, Maintenance Service Contract ~ 5%					
		Procurement ~ 2%, Inspections ~ 10%					
		and Closeout ~ 1%)					
		<b>CONSTRUCTION COST</b>					<b>\$22,000,000.00</b>
		Ref.: For appropriate use and terminology, see Reclamation Manual, Directives and Standards FAC; 09-01, 09-02 and 09-03.					

QUANTITIES		PRICES	
<b>BY</b> Rick Benik	<b>CHECKED</b> Stephen Latham	<b>BY</b> <i>Greg Atkins</i> Greg Atkins	<b>CHECKED</b> <i>Thomas M. ...</i> Thomas M. ...
<b>DATE PREPARED</b> 03/24/11	<b>PEER REVIEW / DATE</b> Tom Hepler P.E. 3/25/11	<b>DATE PREPARED</b> 4/9/11	<b>PEER REVIEW / DATE</b> DCD 6/13/11

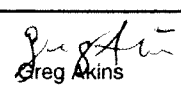
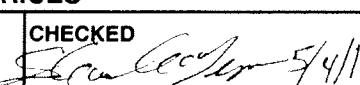



<b>FEATURE:</b> <b>Klamath River Dams Removal</b> <b>Partial Removal Option</b> <b>Removal Site Maintenance</b> <b>Most Probable High</b> <b>Life Cycle - 50 Year</b> <b>Operation and Maintenance - Periodic Costs</b>				<b>PROJECT:</b> <b>Klamath River</b> <b>Oregon</b>			
				<b>WOID:</b> AF484		<b>ESTIMATE LEVEL:</b> Feasibility	
				<b>REGION:</b> MP		<b>UNIT PRICE LEVEL</b> Jul-10	
				<b>FILE:</b> U:\2011 Projects\Klamath\002 Completed Sheets\MP MPL MPH\03 - JC Boyle\MPH\JC Boyle - MPH - Probable.xlsx\O&M			

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	1	<b>Site Maintenance - Annual: JC Boyle Site only*</b>		1	LS	\$250,000.00	\$250,000.00
		Labor needed per year - threes sites:	86-68130	150			
		3-Man maintenance crew					
		6 Months active inspection/maintenance					
		2 Weeks full time (1 month each spring)					
		4 Full days, 2 times each month (5 months)					
		Site maintenance required at JC Boyle, Copco 1 & Copco 2					
		<i>Estimate prorated amount of the time at each dam site based on percent of total MP partial removal construction costs</i>					
					dy***		
		Equipment needed per year	86-68130	50	dy**		
		1-Service truck					
		Includes compressor, welder, generator and general tools					
		<i>Estimate prorated the time at each dam site based on percent of total partial removal construction costs</i>					
		Materials needed per year (percentage of labor & equipment)	86-68130	15%			
		Road maintenance needed per year (percentage of labor & equipment)	86-68130	10%			
		<i>*Total estimated cost for all 3 sites is approximately \$462,000 annually: prorated ±55% for the JC Boyle site only</i>					
		<i>** Man days per year for 50 years</i>					
		<i>***Days per year for 50 years</i>					
		<b>SUBTOTAL THIS SHEET</b>					<b>\$250,000.00</b>

<b>QUANTITIES</b>		<b>PRICES</b>	
<b>BY</b> Rick Benik	<b>CHECKED</b> Stephen Latham	<b>BY</b>  Greg Atkins	<b>CHECKED</b>  5/4/11
<b>DATE PREPARED</b> 04/18/11	<b>PEER REVIEW / DATE</b> Tom Hepler P.E. 4/18/11	<b>DATE PREPARED</b> 5/4/11	<b>PEER REVIEW / DATE</b>  5/4/11